

## **REMARKS/ARGUMENTS**

Claims 1-11 are currently pending in the present application. No new amendments have been made with the filing of this response. In view of the following remarks, reconsideration of the present application is respectfully requested.

### **REJECTION UNDER 35 U.S.C. § 103(a)**

Kodama et al and Weyer et al., alone or in combination, fail to describe or suggest the claimed process for preparing polyoxyalkylene glycols comprising:

copolymerizing, in one stage, tetrahydrofuran and alpha,omega-diols with the exception of butanediol as the comonomer in the presence a heteropolyacid and of a hydrocarbon,

distilling off a mixture of water and the hydrocarbon from the copolymerization, and

*terminating the polymerization by adding water when a molecular weight of from 1,000 to 2,800 is attained.*

(Present claim 1).

Applicant notes the Office's comments in the Final Office Action, in which the Office re-acknowledges that "Kodama et al. [does] not disclose applicant's process to terminate the polymerization reaction using water in order to obtain a copolymer having a desired molecular weight." Final Office Action at page 2, paragraph 2.

The Office asserts that the disclosure of Weyer et al. cures this deficiency, since the reference allegedly discloses, *inter alia*, "addition of [a] proton donor at the polyoxyalkylene chain being formed causes chain termination in the polymerization reaction." *Id.* The Office also asserts that the reference allegedly discloses "adjusting the average molecular weight of polyoxyalkylene;" "a polymer having [an] average molecular weight of from about 500 to 3,500 dalton;" and controlling molecular weight with electrical conductivity that "can be controlled by the addition of a [a] proton donor." *Id.* at pp. 2-3.

However, Applicant respectfully disagrees with the Office's interpretation of the Weyer et al., which does not describe the present invention. Moreover, Applicant submits that the Office's reasoning for maintaining the rejection contravenes recent case law precedent.

Regarding recent case law, Applicant notes that the U.S. Supreme Court, in *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007), the Court indicated that the *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966) factors still control an obviousness inquiry. Among other things, the “differences between the prior art and the claims” must be considered. *KSR*, 127 S.Ct. at 17-18 (quoting *Graham*, 383 U.S. at 17-18). In addition, the Court acknowledged that “[o]ften, it will be necessary for a court to look to interrelated teachings of multiple patents . . . to determine whether there was an apparent reason to combine . . . elements in the fashion claimed . . . [But to] facilitate review, this analysis should be made explicit.” *KSR*, 127 S. Ct. at 1741. (Emphasis added).

In *Takeda Chemical Industries, Ltd., et al. v. Alphapharm PTY, LTD., et al.* (No. 06-1329; Fed. Cir. 2007), the Federal Circuit affirmed a district court’s decision that the claims of a patent were unobvious, since there was no motivation to modify the prior art and the prior art taught away from the claimed invention. The Federal Circuit indicated that, in chemical cases, there must be some identified reason that would have “prompted” a chemist to make a modification in a particular manner to establish *prima facie* obviousness. (Citing *KSR*, 127 S. Ct. at 1731).

Regarding the present case, Applicant notes that there is no apparent reason to combine the reference, since Weyer et al. explicitly discloses that in the reaction system “it is possible *continuously to measure and to control* the proton donor/heteropolyacid ratio in the reaction system as a whole and in the catalyst phase in particular.” (Column 3, lines 54-57). (Emphasis added). Moreover, the reference indicates that the molecular weight of the resulting polymer is controlled *in the course of the polymerization* reaction with the addition of the proton donor. (See column 3, line 63 through column, 4, line 5). Furthermore, as previously noted, the examples of Weyer indicate that water is *added at the beginning* of the reaction and by *metered gradually during the reaction*.

By contrast, such method steps are entirely different and teach away from the claimed invention, which requires “*distilling off a mixture of water* and the hydrocarbon from the copolymerization, and *terminating the polymerization by adding water* when a molecular weight of from 1,000 to 2,800 is attained.” (Present claim 1). As described in the present specification at page 2, lines 15-17, the termination of the copolymerization “results in an effectively

stabilized heteropolyacid which remains colorless, stable and catalytically active even on prolonged intermediate storage.”

However, other than the description in the present specification, there is nothing that would have prompted one to modify either of the prior art references to distill off water and terminate polymerization in the manner presently claimed. As such, the Office has not shown that the combined references describe or suggest the claimed invention, or even provided any explicit analysis of why the disclosures of the references should be combined.

Therefore, in view of the above additional reasons, the rejection is improper. Accordingly, withdrawal of the rejection and allowance of the claims is requested.

In view of the above remarks, Applicant believes the pending application is in condition for allowance. In the event the Office believes an interview might serve in any way to advance the prosecution of this application, the undersigned is available at the telephone number noted below.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 12810-00095-US from which the undersigned is authorized to draw.

Dated: September 7, 2007

Respectfully submitted,

Electronic signature: /Bryant L. Young/  
Bryant L. Young  
Registration No.: 49,073  
CONNOLLY BOVE LODGE & HUTZ LLP  
1875 Eye Street, NW  
Suite 1100  
Washington, DC 20006  
(202) 331-7111  
(202) 293-6229 (Fax)  
Attorney for Applicant